

CRUFF WASH
FCD GAGE ID# 5078

STATION DESCRIPTION

LOCATION – The gage is located in southwest Maricopa County along Agua Caliente Road about seven miles west of Old US 80. Latitude N33° 15' 4.2", Longitude W112° 52' 54.6". Located in the SW1/4 S16 T2S R6W in the Gillespie 7.5-minute USGS quadrangle.

ESTABLISHMENT – Gaging was established on May 14, 2002.

DRAINAGE AREA – The drainage area is approximately 14 mi².

GAGE – The gage is a pressure transducer type instrument. The transducer diaphragm is at elevation 0.33 feet gage height, levels of October 10, 2006.

There is one crest-stage gage at this location. It is located on the left bank across from the transducer gage. Pin elevation is 2.14 feet gage height, levels of October 10, 2006.

There is no staff gage at this location.

ZERO GAGE HEIGHT – Zero gage height is defined as elevation 937.91 feet NAVD 1988.

HISTORY – No previous history at this location. Gaging established on May 14, 2002. Crest gage destroyed during August 23, 2003 event. Survey of cross sections, references, and cross section markers on September 23, 2003. Elevations of RM-CRUFF have been updated to reflect survey findings. Drainage area recomputed, October 7, 2003. Crest-stage gage likely installed in July 2004. Station moved 0.8 miles downstream on August 23, 2006 because the bank near the station tube was about to erode and cause a failure. Seven cross sections were surveyed at the new station location.

REFERENCE MARKS –

RM-CRUFF is an FCD brass cap located on the left bank near the gage standpipe. Elevation 3.96 feet gage height or 971.96 feet NAVD 1988, levels of September 23, 2003. Monument is at the old station location.

CHANNEL AND CONTROL – The channel is straight downstream from the gage cross section for several hundred feet. Upstream from the gage cross sections, two significant braids come together to form this main channel.

The channel bottom is mostly sand with some gravel and rock. The banks are fairly shallow on both sides, but the most significant overbank is the left bank. It continues well to the north for hundreds of feet with very little upslope.

RATING – The current rating is Rating #2, applied as of gage relocation to the new site. The rating is based on survey data from seven cross sections. An HEC-RAS model was developed from the survey data. A -0.5-foot shift was applied beginning with Water Year 2010.

DISCHARGE MEASUREMENTS – Indirect discharge measurements could be made in the reach at the gage. Direct measurements could also be done in the same reach.

POINT OF ZERO FLOW – The PZF is at about 0.0 feet gage height, levels of October 10, 2006.

FLOODS – August 23, 2003, peak discharge 765 cfs at 3.80 feet gage height. February 13, 2003, peak discharge 215 cfs at 2.22 feet gage height. A peak discharge of 725 cfs and 3.42 feet gage height occurred on August 10, 2006. No runoff events have occurred at the new station location.

REGULATION – None

DIVERSIONS – None known

ACCURACY – Fair

JUSTIFICATION - Monitor flows in the wash for road closure of Agua Caliente Road, about 2 1/4 miles downstream.

UPDATE - July 14, 2011
DE Gardner